(12)

EP 0 903 871 A2

EUROPEAN PATENT APPLICATION

(43) Date of publication: 24.03.1999 Bulletin 1999/12 (51) Int. Cl.6: H04B 1/707, H04J 13/04

- (21) Application number: 98306565.7
- (22) Date of filing: 18.08.1998
- (84) Designated Contracting States:
 AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
 MC NL PT SE

Designated Extension States: AL LT LV MK RO SI

- (30) Priority: 18.08.1997 KR 3920097 18.08.1997 KR 3919997
- (71) Applicant: Samsung Electronics Co., Ltd. Suwon-city, Kyungki-do (KR)
- (72) Inventors:
 - · Yoon, Soon-Young
 - Songpa-gu, Seoul (KR)
 - Ahn, Jae-Min Kangnam-gu, Seoul (KR)

- · Kang, Hee-Won
- Chungnang-gu, Seoul (KR)

 Kim, Young-Ky
- Kangnam-gu, Seoul (KR)

(11)

- No, Jong-Seon
- Songnam-Shi, Kyonggi-Do (KR)

 Song, Hong-Yeop
- Yongdungpo-gu, Seoul (KR)
- Chung, Ha-Bong
- Kwachon-Shi, Kyonggi-Do (KR)
- Kim, Je-Woo Songnam-Shi, Kyonggi-Do (KR)
- (74) Representative: Lunt, Mark George Francis Dibb Lupton Alsop Fountain Precinct Balm Green Sheffield S1 1RZ (GB)

(54) Spread spectrum signal generating device and method

There is provided spread spectrum signal generating device and a method in a transmitter of a mobile communications system using a plurality of logical channels. In the spread spectrum signal generating device, a multiplexer time multiplexes a pilot channel signal and a control channel signal which are output at a constant power levels, a first orthogonal encoder orthogonally spreads the output of the multiplexer with an orthogonal code, a second orthogonal encoder orthogonally spreads voice channel data of a variable bit rate with an orthogonal code, a third orthogonal encoder orthogonally spreads packet channel data of a variable bit rate with an orthogonal code, an IQ signal mapper adds the outputs of the first and third orthogonal encoders, outputs the added signal as a first channel signal, and outputs the output of the second orthogonal encoder as a second channel signal and a PN spreader spreads the first and second channel signals with PN codes and outputs a final spectrum spread signal. Therefore, a peak-to-average power ratio of the transmitter is maintained so as to be substantially uniform.

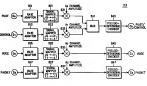


FIG. 8